

AT AUSTRALIAN PHONE & INTERNET
WE'RE HAPPY
WHEN YOU'RE HAPPY

MODEM INSTALLATION GUIDE



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V1: API13_013 Modem Installation Guide

Australian
Phone & Internet

A WARM WELCOME

Thank you for choosing
Australian Phone & Internet as
your broadband provider. We're
delighted that you've joined us.

Your ADSL (broadband) account with Australian Phone & Internet is now live. All you need to do now is install your modem and connect your computer. You'll then be able to start browsing the web.

We've done all the complicated work necessary to configure your modem with your username and password so it's just a simple matter of connecting the right cables. Instructions how to do this are in this booklet.

Details about the more advanced features of your modem can be found in the support section of the Netcomm website at
<http://support.netcommwireless.com>

If you can't find what you're looking for either in this book or online, our team can be contacted on **1300 137 768**.

Thank you once again for choosing
Australian Phone & Internet.

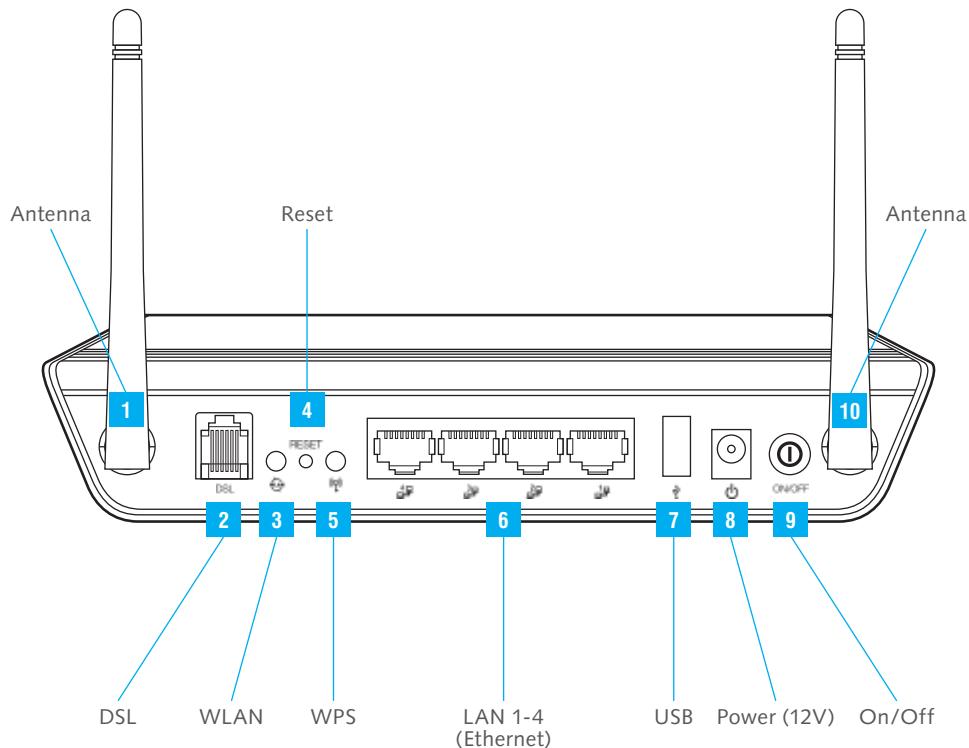
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GETTING TO KNOW YOUR MODEM

Back

The back of the modem is where you connect everything, turn it on/off and also reset it. Here we'll explain what each of the ports, sockets and buttons is, where they are and what you use them for.

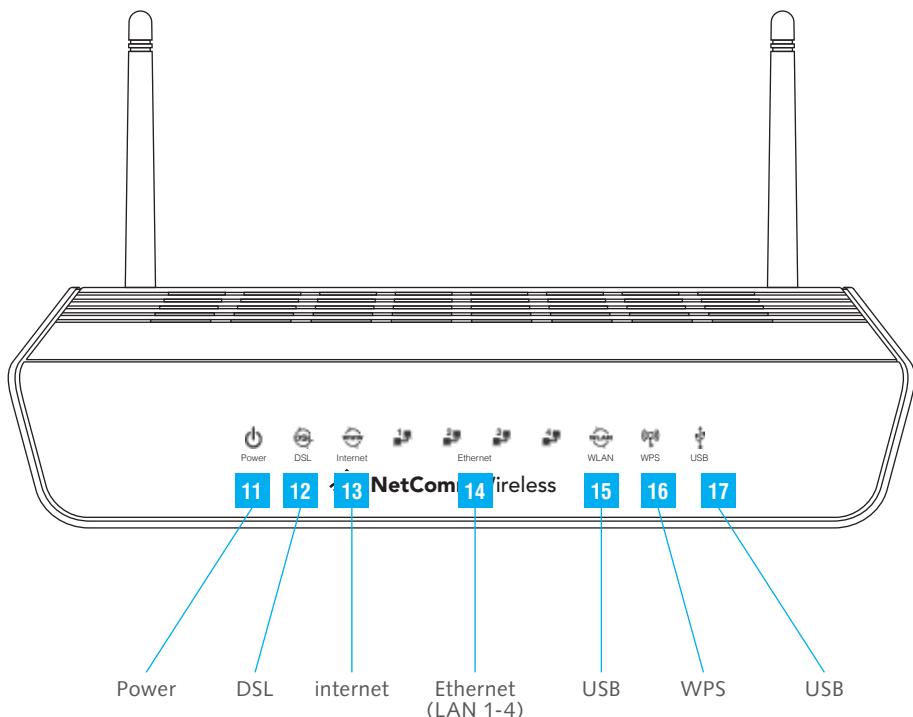


	Interface	Function
1	Antenna	WiFi antenna
2	DSL	Attach a telephone line with an active xDSL service here
3	WLAN	Press this button to enable or disable the WiFi function of the NB604N (this can also be done via the control panel)
4	RESET	Hold this button down for 10 seconds or more to reset the NB604N to factory defaults
5	WPS	Press this button to enable the WPS push-button connect function
6	LAN 1-4	Attach your devices by cable to these Ethernet (RJ-46) ports
7	USB	Attach an external USB storage device to share content with connected devices
8	Power (12V)	Power connector, connects to a DC 12V 1.5A power adapter
9	On/Off	Turn the NB604N on or off with this switch
10	Antenna	WiFi antenna

GETTING TO KNOW YOUR MODEM

Front

The front of the modem is where all the LED status indicators are located. They let you know the status of your modem, whether it is on or off, if you're connected to the internet, whether WiFi and WPS are enabled and so on. The diagram below shows the position of each LED and the table on the right provides a brief explanation of what each of the LED indicators mean.



		Light	Colour	Definition
11	Power	Off	Router is not powered on	
		Red	Router is starting up	
		Blue	Router is operating normally	
12	DSL	Off	Router is not connected to an xDSL service	
		Blue	Router is connected to an xDSL service	
		Flashing	Router is connecting to an xDSL service	
13	internet	Off	Router is not connected to the internet	
		Red	Router is unable to connect to the internet with the current configuration details	
		Blue	Router is connected to the internet	
		Flashing	Data is being transmitted or received via the internet connection	
14	Ethernet (LAN 1-4)	Off	No device connected to the LAN port	
		Blue	Device connected to the LAN port	
		Flashing	Data is being transmitted or received on the LAN port	
15	WLAN	Off	WiFi function is disabled	
		Blue	WiFi function is enabled	
		Flashing	Data is being transmitted or received via the WiFi network	
16	WPS	Off	WPS function is disabled	
		Blue	WPS function is enabled	
		Flashing	WPS function is attempting to connect to a device	
17	USB	Off	No USB device is plugged in	
		Blue	USB device plugged in	
		Flashing	Data is being transmitted or received from the attached USB device	

INSTALLING YOUR MODEM

We'll take you through a step-by-step process of installing your modem and connecting both wired and wirelessly. Throughout the text you will see numbers in brackets, these refer to the diagrams on the previous pages to make it easier to identify what part of the modem we're talking about.

Positioning your modem

The position of your modem can be important depending on how you intend to use it. You will need a power point and phone socket nearby, and it should be close to your computer if you're connecting directly with a cable. If you plan to connect wirelessly it is worth considering where you place the modem in your house to get the best signal. Here are some tips:

- Place the modem somewhere central in your house for the best signal coverage in each room. In multi-storey homes, place the modem on a floor that is as close to the centre of the house as possible. This may mean placing it on an upper floor.
- Try not to place your modem near a cordless telephone that operates at the same radio frequency as your modem (2.4GHz).
- Avoid placing your modem near devices that may emit radio 'noise', such as microwave ovens.
- Also avoid dense objects that can inhibit wireless communication, including refrigerators, washers and/or dryers, metal cabinets, large aquariums, metallic-based/UV-tinted windows.

Installing your modem

Once you've worked out where you want to put your modem it's time to connect it.

Before connecting your modem, you must make sure any devices plugged into your phone line (handsets, fax machines, cable television, back to base alarm systems) have a central splitter or ADSL filter/splitter (you will find this in the box with your modem) fitted between them and the telephone socket.

STEP 1

Connect the power adaptor cable to the **Power** socket (8) on the back of the modem and plug the adaptor into a point.

STEP 2

Plug the ADSL2+ filter/splitter provided with the modem into your telephone wall socket.

STEP 3

Next, take the telephone cable (RJ-11) provided and plug one end into the filter/splitter and the other end into the **DSL** (2) port on the back of your modem.

STEP 4

Press the **On/Off** (9) button to turn the modem on and wait while the modem powers up – this should take about 60 seconds.

STEP 5

Check that both the **DSL** (12) and **Internet** (13) LEDs on the front have lit up. If they're solid then your modem is connected to the internet. If not please refer to the Troubleshooting section.

STEP 6

Now you can connect your computer with a cable or wirelessly.

CONNECTING TO YOUR MODEM

Connecting with a cable

To connect to the internet/modem with a cable follow these steps:

STEP 1

Plug one end of the Ethernet cable (Cat 5e) provided into one of the yellow Ethernet ports marked **LAN 1 – LAN 4 (6)** on the back of the modem and the other end to the Ethernet port on your computer.

STEP 2

Wait for the connection to be made – this should take about 30 seconds.

STEP 3

Check the corresponding **Ethernet (14)** LED on the front of the modem has lit up. If it's solid then you're connected. If not please refer to the Troubleshooting section.

STEP 4

Open your browser (e.g. internet Explorer/Firefox/Safari) and start browsing the internet.

Connecting wirelessly

To connect to the internet/modem wirelessly follow these steps:

STEP 1

Enable WiFi on your device (computer/laptop/smartphone/tablet). The wireless network on your modem is already enabled by default.

STEP 2

Scan for wireless networks on your device and connect to the network name matching the one configured on your modem.

Please note: The default wireless network name is [NetComm Wireless*](#)

STEP 3

Enter the wireless security key (password) configured on your modem when prompted.

Please note: The default wireless security key is [a1b2c3d4e5*](#)

STEP 4

Wait for the connection to be made – this should take about 30 seconds.

STEP 5

Open your browser (e.g. internet Explorer/Firefox/Safari) and start browsing the internet.

* To protect your privacy and prevent people you don't know using your internet connection we recommend you change these default settings. The steps to change your wireless network name and wireless security key can be found on pages 13-16 in the section Configuring your modem.

CONFIGURING YOUR MODEM

Logging onto your modem

Once you've installed your modem and connected to the internet we recommend you adjust some of your settings. This can be done through the control panel. To access the control panel follow these steps:

STEP 1

Open your web browser (e.g. Internet Explorer/Firefox/Safari), type <http://192.168.1.1> into the address bar and press the **Enter**/
Return key. You should see the control panel login (Fig. 1).

STEP 2

Enter the login details and click **OK**.

Please note: The default **User Name** and **Password** are both admin*

You should see the control panel home screen (Fig. 2).

Use the left menu to access all the settings on your modem. On the following pages we'll explain how to change your network name, enable wireless security and change the password that allows administrator access to your modem settings.

For information on the more advanced features and settings please download the full user manual from <http://support.netcommwireless.com/>

* To protect your privacy and prevent people you don't know using your internet connection we recommend you change the default settings. The steps to change your modem access details can be found on pages 17-18 in the section Configuring your modem.

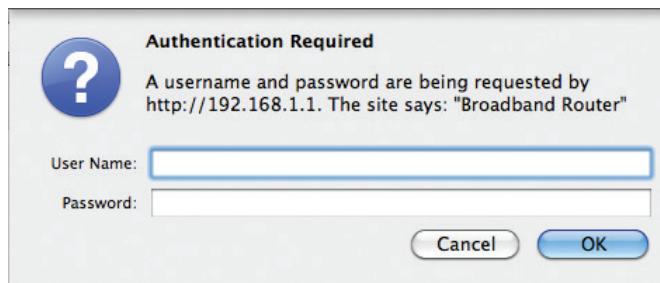


Fig. 1: Control panel login

Fig. 2: Control panel home screen

CONFIGURING YOUR MODEM

Configuring your wireless network

To turn your wireless network on or off and change your network name follow these steps:

STEP 1

Select **Wireless > Basic** in the left menu. The wireless configuration screen will be displayed (Fig. 3)

STEP 2

Make sure the **Enable Wireless** checkbox is ticked (it should be by default). This means your wireless network is turned on.

STEP 3

Create a new name for your wireless network. This can be done in the **SSID** field (it's **NetComm Wireless** by default). It's recommended you change the name to something unique to make it easier to identify your network from others nearby but also for improved security. Your network name will be visible outside of your home or office, so the name should be recognisable but should not use any personal or service details.

STEP 4

Once you've finished click **Apply/Save** to save your new wireless settings.

The screenshot shows the 'NetComm Wireless' configuration interface. The left sidebar lists navigation options: Device Info, Basic setup, Advanced Setup, Wireless (selected), Basic, Security, MAC Filter, Wireless Bridge, Advanced, Station Info, Diagnostics, and Management. The main content area is titled 'Wireless -- Basic' with the sub-instruction: 'This page allows you to configure basic features of the wireless LAN interface. You can enable or disable the wireless LAN interface, hide the network from active scans, set the wireless network name (also known as SSID) and restrict the channel set based on country requirements. Click 'Apply/Save' to configure the basic wireless options.' Below this, there are several configuration options with checkboxes:

- Enable Wireless
- Hide Access Point
- Clients Isolation
- Disable WMM Advertise
- Enable Wireless Multicast Forwarding (WMF)

Fields for SSID, BSSID, Country, and Max Clients are present. At the bottom, a table titled 'Wireless - Guest/Virtual Access Points:' lists four entries: NetComm Wireless 2, NetComm Wireless 3, and NetComm Wireless 4, each with checkboxes for Enabled, SSID, Hidden, Isolate Clients, Disable WMM Advertise, Enable WMF, Max Clients, and BSSID. A 'Apply/Save' button is at the bottom right.

Fig. 3: Wireless configuration screen

CONFIGURING YOUR MODEM

Securing your wireless network

To create a password and secure your wireless network follow these steps:

STEP 1

Select **Wireless > Security** in the left menu. You will see the wireless security screen (Fig. 4).

STEP 2

Make sure your network name is selected in the **Select SSID** drop down menu.

STEP 3

Use the **Network Authentication** drop down menu to select an encryption method. We recommend mixed WPA2/WPA2-PSK for the best security. By default it should already be set to this.

STEP 4

Create a password that will be used to access your wireless network and enter it in the field next to **WPA/WAPI passphrase**. This is the password for your wireless network and prevents people you don't know from accessing it. When connecting devices to your wireless network you will be asked for the password. Anyone who tries to connect without it won't be able to.

Please note: Your password for your wireless network must be eight or more characters long (the longer the better) and can include upper and lower-case characters, numbers and symbols. We recommend you create a complex password. The more complex, the more secure it will be.

STEP 5

Once you've finished click **Apply/Save** to save the wireless security settings.

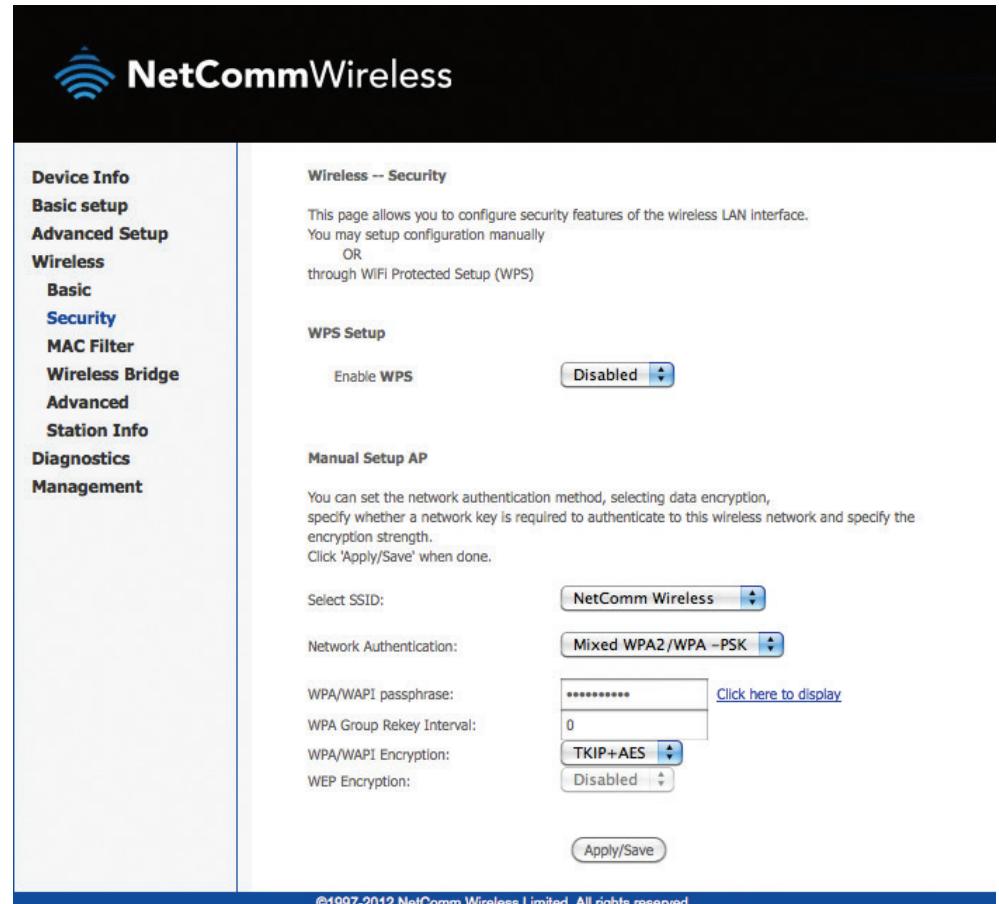


Fig. 4: Wireless security screen

Make a note of your password somewhere safe. If you forget it you can always view your password by connecting to your modem with a cable, logging onto the control panel, going to wireless security and clicking the blue link next to the **WPA/WAPI passphrase** field which says **Click here to display**.

CONFIGURING YOUR MODEM

Changing your modem access details

When you configure your modem through a browser, the system requires you to enter your username and password to validate your access permission. By default, these are both set to **admin**. We recommend you change these to prevent people you don't know accessing your modem and changing the settings. To change both the username and password follow these steps:

STEP 1

Select **Management > Access Control** in the left menu. You will see the **Passwords** screen (Fig. 5).

STEP 2

Depending on what you want to change, enter your existing username and/or password and a new username and/or password.

STEP 3

Once you've finished click **Apply/Save** to save your new username and password.

Make a note of your new username and password somewhere safe. If you forget them you will need to reset your modem. For instructions on how to do this refer to the Troubleshooting section.

The screenshot shows the 'Access Control -- Passwords' page of the NetCommWireless configuration interface. The left sidebar lists various management options: Device Info, Basic setup, Advanced Setup, Wireless, Diagnostics, Management, Settings, System Log, TR-069 Client, Internet Time, Access Control, Passwords, Services Control, Update Software, and Reboot. The main content area has a heading 'Access Control -- Passwords' with a sub-instruction: 'Access to your DSL router is controlled through three user accounts: admin, support and user.' It explains that 'admin' has unrestricted access, 'support' allows ISP technicians to access for maintenance, and 'user' can view configuration and update software. Below this is a note about password length and character restrictions. There are five input fields for entering new credentials: 'Username', 'New Username', 'Old Password', 'New Password', and 'Confirm Password'. A blue 'Apply/Save' button is located at the bottom right of the form area.

Fig. 5: Passwords screen

CONFIGURING YOUR MODEM

Re-entering your internet connection details

Your modem comes preconfigured with all the settings required for it to connect to the internet. You should not need to change these settings unless instructed to do so during troubleshooting.

STEP 1

Select **Basic Setup** in the left menu. You will see the *Quick Setup* screen (Fig. 6).

STEP 2

Your **PPP username** and **PPP password** will already be entered in the fields. To re-enter your details simply select and delete what's there and re-type in your username and password.

Please note: This is the username and password we sent you when we activated your account.

STEP 3

Once you've finished click **Apply/Save** to save your new username and password. Your modem will then automatically try to connect using the details you entered.

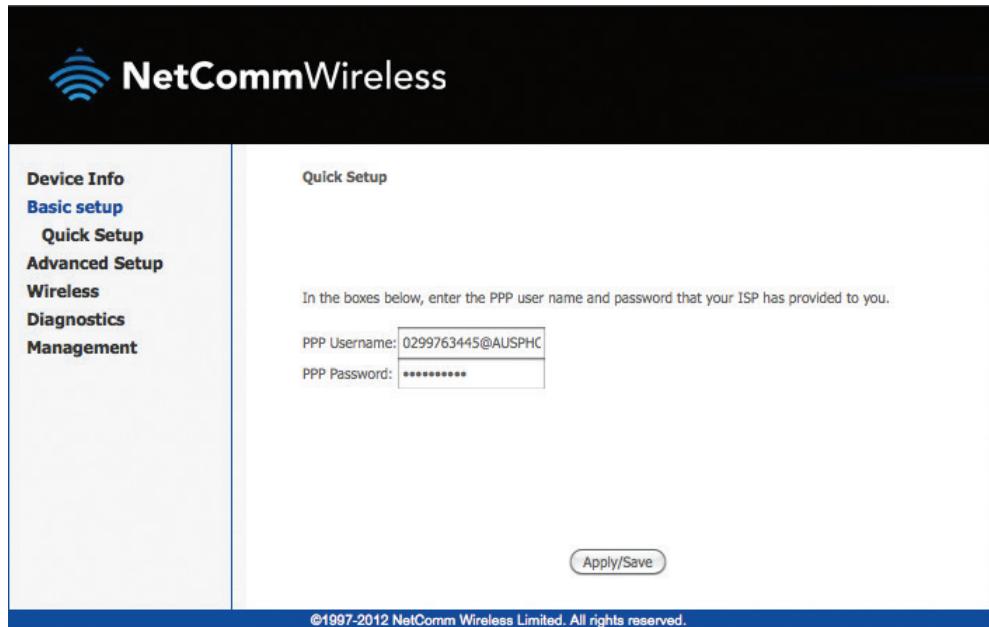


Fig. 6: Quick setup screen

TROUBLESHOOTING

Always begin troubleshooting by rebooting your computer and power-cycling the modem. This is particularly important if your computer has only recently begun to exhibit problems.

To power-cycle your modem do the following:

- turn the modem off and unplug it and wait 30 seconds
- plug the modem back in and turn it on, wait another 30 seconds
- finally restart your computer.

Power-cycling your modem re-synchronizes the ADSL signal and the network connection to your computer.

Problem	Solution
My modem won't turn on/the Power LED remains unlit	<ul style="list-style-type: none">• Your modem may not be connected properly. Check that the power supply is plugged in securely, both at the wall socket and at the back of the modem.• Check the modem's On/Off switch and power point are both switched on.• The power point you're using could be faulty. Try a different one, if possible. <p>If, after trying these things, your modem is still not on/ the Power LED is still not solid blue, then your modem may be faulty. Call us on 1300 137 768 or email enquiries@ausphonenet.com.au</p>

Problem	Solution
My modem isn't connecting to the internet and the DSL LED continues to flash	<ul style="list-style-type: none">• Your modem may not be connected properly. Check cables are plugged in securely – you should feel/hear a slight 'click' when they are.• Other devices may be interfering with the modem's signal. Make sure all other devices (phones, faxes, cable television, alarm systems) are plugged into the phone line via a filter/splitter. Try plugging the cable from your modem directly into the phone socket in the wall, bypassing the filter/splitter. Lastly, perform an isolation test by connecting your modem directly into the phone socket and disconnecting every device that is connected to a phone socket.• The phone socket or line may be faulty. Try a different phone socket, if possible.• The cable connecting the modem to the phone line may be faulty. Try a different cable, if possible.• Audible noise on the phone line may be interfering with your signal. Disconnect the modem and listen for noise on your phone. If you hear snaps and crackles when making a phone call there may be a landline/fixed service fault. <p>If, after trying each of these things, the DSL LED is still not solid blue your modem may not be connecting to the exchange due to a service outage. Please contact technical support on 1300 137 768 or email enquiries@ausphonenet.com.au</p>
My modem isn't connecting to the internet. The DSL LED is solid blue but the Internet LED is off/solid red	<ul style="list-style-type: none">• There may be a problem with the connection. Reboot the modem to reset the connection.• Your service connection username/password may be incorrect. You can correct this by logging into your modem (p.11-12), going to <i>Basic > Quick Setup</i> and re-entering your internet connection details (p.19-20).

TROUBLESHOOTING

Problem	Solution	Problem	Solution
My computer is connected to one of the LAN ports but I can't access the internet	<ul style="list-style-type: none"> Your modem and computer may not be connected properly. Check the Ethernet LED that corresponds with the port you're plugged into is lit. Check cables are plugged in securely – when they are you should feel/hear a slight 'click'. A network device between your computer and your modem, such as a hub, may be causing the problem. Bypass these and connect directly to the modem to make sure they are not the cause. The Ethernet cable connecting your computer to the modem may be faulty. Try a different cable, if possible. 	I've forgotten my wireless network password	<ul style="list-style-type: none"> If you forget your password you can retrieve it by logging into your modem (p.11-12) and going to <i>Wireless > Security</i> and clicking on the blue link next to the WPA/WAPI passphrase (p.15-16) field which says Click here to display.
I can't see my wireless network	<ul style="list-style-type: none"> Your wireless network might not be enabled. You can tell whether it is by checking the WLAN LED, which should be lit blue. If it isn't then log into your modem (p.11-12) and go to <i>Wireless > Basic</i> and enable your wireless network (p.13-14). If the WLAN LED is lit but you still can't see your wireless network it may be hidden. Go to <i>Wireless > Basic</i> (p.13-14) and uncheck the Hide Access Point checkbox. You may be out of range of your wireless network so will need to move closer to your modem. 	I can't access the control panel at http://192.168.1.1	<ul style="list-style-type: none"> Your computer may not be connected to the modem or it may not be on. Check the modem is switched on (Power LED is blue) and all cables are plugged in securely; or, if you are connecting wirelessly, that your wireless network is enabled (WLAN LED is blue) and your computer is connected.
I can't connect to my wireless network	<ul style="list-style-type: none"> Your wireless network might not be enabled. You can tell whether it is by checking the WLAN LED, which should be lit blue. If it isn't then log into your modem (p.11-12) and go to <i>Wireless > Basic</i> and enable your wireless network (p.13-14). You may have entered your wireless network name and password incorrectly on your computer. Try entering them again. By default the wireless network name is NetComm Wireless and the password is a1b2c3d4e5 unless you've changed them. 	I've forgotten the password that allows administrator access to my modem settings	<ul style="list-style-type: none"> The default username/password are both admin, unless you've changed them. If you have changed them you will need to reset the modem to factory default settings by holding down the Reset button for at least 10 seconds (you'll need a paper clip or something similar). You should then be able to log on using the default username/password.

If the steps in this troubleshooting guide don't resolve the problem, or for further assistance with any of the features mentioned throughout this booklet, please call our friendly technical support team on **1300 137 768**.

For further support with the advanced features of your modem, such as hiding your access point, setting up guest networks and port forwarding, download the full user manual from <http://support.netcommwireless.com/> or contact their support team in your state:

NSW/ACT: (02) 9424-2059
 VIC/TAS: (03) 9012-3399
 SA/NT: (08) 8121-9001

QLD: (07) 3102-8870
 WA: (08) 9467-8980

GLOSSARY

Access Point

An access point is a device on a network, such as a modem or hub, which allows data to be transferred from one location to another (i.e. computer to computer or computer to internet).

ADSL

Asymmetric Digital Subscriber Line or (ADSL) is simply a DSL line. It has different upload and download speeds.

DSL

Digital Subscriber Line (or DSL) is the technology that allows large amounts of data to be sent over existing ordinary copper telephone lines.

Ethernet

Ethernet is the standard way of connecting computers and devices over a LAN in the home or workplace. Recent computers will be factory fitted with an Ethernet card and socket.

Filter/Splitter

When you have ADSL broadband your phone and internet connection use the same physical line. You use a filter/splitter to connect your phone to the shared phone line so you can't hear the high-pitched noise of data being sent and received.

ISP

An Internet Service Provider (or ISP) is the company, such as Australian Phone & Internet, which provides you with access to the internet.

LAN

Local Area Network (or LAN) is a group of devices linked together in a workplace or home, either by cable or wirelessly, to form a closed network through which they can communicate with each other and the internet.

Modem

A modem (modulator-demodulator) is a device that allows you to connect to the internet by encoding and decoding high-speed digital signals sent and received over analog copper phone lines.

Router

A router is a device, usually combined with modem, which sits between your computer (laptop, iPad, smartphone, etc) or network and the internet and makes sure that all data goes where it should. Basically it directs traffic. Routers are great for operating a network that has more than one device requiring access to the internet.

SSID

Service Set Identifier (or SSID) is the technical jargon for the name of a your wireless (WiFi) network. All wireless devices on a WiFi network must use the same SSID in to connect to the network and communicate with each other and the internet.

WLAN

A WLAN or Wireless Local Area Network is the same as a LAN but without the need for wires.

WPA/WAPI

WiFi Protected Access/ WLAN Authentication and Privacy Infrastructure (or WPA/WAPI) is a method of encryption that was created to improve on the security features of WEP.

WEP

Wired Equivalent Privacy (or WEP) is a method of encryption used to secure wireless networks and protects wireless users data from being intercepted people they don't know. WEP is less secure than WPA/WAPI.

WiFi

WiFi is the popular term for WLAN and is trademark of the Wi-Fi Alliance. It is used as branding for devices that can access wireless networks (such as wireless internet).